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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,394	08/18/2003	Yoshinori Tsubaki	03478/HG	3403

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT PAPER NUMBER

1774

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,394

Applicant(s)

TSUBAKI ET AL.

Examiner

Pamela R. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on June 8, 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) 7-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1 and 3-19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The examiner has carefully considered the entire record, including applicants' remarks and declaration filed with the most recent response. Upon careful reconsideration of the Held reference, the examiner believes that the ratios presented at col. 10, lines 7-11 of the reference must be in error because they are inconsistent with the examples and unsupported at any other point in the specification. Consequently, all rejections over Held et al. have been withdrawn. Due to the breadth of some of the claims, however, the examiner has determined that the following rejections are applicable.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 3-6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of copending Application Nos. 10/770,619, 10/833,842, 10/855,525, 10/886,433, 10/823,340, 10/868,481 and 10/935,049. Although the conflicting claims are not identical, they are not patentably distinct from each other because each of these copending applications recites in its claims an ink jet recording sheet having a layer comprising a hydrophilic

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binder and an inorganic pigment. The binder is recited as cross-linked with ionizing radiation. Relying on the specifications to flesh out the embodiments recited by the claims of the copending applications, the claims of the applications are directed to the same kinds of binders with the same or overlapping polymerization degree that have photosensitive groups capable of dimerization as set forth by applicants' claim 6.

Determination of the ratio of components within conventional ranges would have been obvious to one of ordinary skill in the art. With respect to the inclusion of a multivalent metal compound, inclusion of these materials is well known in the art for its mordanting properties.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (6,562,441). The reference discloses a recording medium comprising a coating layer of a base material. The coating is a porous ink receiving layer formed from an aqueous composition comprising 100 parts by weight of a fine pigment of average diameter not larger than 1 micron and pore volume .4 to 2.5 ml/g and 1 to 100 parts by weight of a hydrophilic resin capable of forming a hydrogel by electron beam irradiation (see the abstract). The diameter of secondary particles is preferably 9 to 700 nm (col. 7, lines 1-8). The hydrophilic polymer may have side chains introduced by graft polymerization (col. 7, line 66 to col. 8, line 30). The polymerization degree is not disclosed but overlaps with the claimed range since the molecular weight of the resin is disclosed as in a range to 10,000 to 5,000,000 (col. 8, lines 37-52). Preferred amounts

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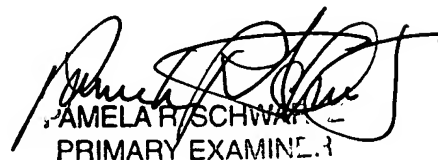
of the resin are as small as possible (col. 9, lines 22-42). The pore volume of the ink receiving layer is disclosed as ml/g (col. 9, lines 43-57). Based upon this disclosure, it would have been obvious to one of ordinary skill in the art to optimize pore volume to provide the desired amount of ink absorption capability in the layer. The reference discloses that inorganic salts may be included for their cationic characteristic 9col. 10, lines 20-41). Such materials are also well known to those of ordinary skill in the art as multivalent metal compounds.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz
August 19, 2006


PAMELA R. SCHWARTZ
PRIMARY EXAMINER